PROPOSED MANAGEMENT PROGRAM

FOR THE ITASCA STATE PARK FOREST - JULY, 1969

In October 1968 the Minnesota Resources Commission proposed that recommendations made in connection with the School of Forestry research report on the ecology and management of the Itasca Park forest be implemented by a plan of action to be funded through the Division of Lands and Forestry for the State Conservation Department. Funds for the 1969-71 biennium were made available for this purpose by the legislature.

The attached proposed program was prepared by joint consultation of the Divisions of Lands and Forestry and Parks and Recreation and the School of Forestry. The activities outlined have been described in rather general terms with many of the details left to be developed. The timing of some action such as burning cannot be projected exactly because of obvious dependence on weather, hazards, and other considerations.

The general objectives background to this management proposals are the restoration to the extent feasible of the conditions prevailing in the park before the era of large scale logging. In this connection it is a matter of rather general knowledge which has been fully documented by research that the present pine stands occupy only a small portion of the original pine acreage and that even this reduced pine acreage is not being regenerated. By contrast, the acreage of aspen has greatly increased following the early logging.

It is also recognized that the aesthetic qualities of the park are a major concern to the hundreds of thousands of people who visit the area each year. While any steps taken to restore the early vegetation will result in temporary disturbance of the natural appearance of the treated areas, these areas will be selected and treatments timed to minimize such disturbance as much as possible and to consider aesthetic objectives.

Treatment Area 1A Lake Alice Trail

A. Treatment objectives

1. To perpetuate white and red pine under and adjacent to the scattered old pines in portions of this area before they are lost as a seed source. These pine represent three of the age classes present in the park and have been subject to increasing blowdown in the last 10-15 years.

2. To convert the predominantly aspen type in much of this area to a mixture of pine, oak, birch and aspen. The aspen is in the 80-90 year age class and is very decadent. Natural regeneration of pine and other tree species is prevented by a dense shrub canopy averaging 33,000 stems per acre of which about 77% is hazel.

3. To test and compare on a management area scale the feasibility and effectiveness of burning, logging, herbicides, seeding, and planting, alone and in combination, in attaining these objectives. Six permanent tenth-acre plots have already been located in this area and a pre-treatment inventory has been taken of the trees, shrubs, and ground cover.

B. Proposed treatment schedule

1. Spray shrubs (2,4-D + 2,4,5-T mixture) in an area about 50' wide along each side of Lake Alice trail using a power sprayer along the trail rather than aerial spraying to eliminate drift to nearby areas. Time: August, 1969 or 1970.
2. Removal of all aspen south of the trail (about 50 acres). The scattered birch, oak, and red maple to be left. Slash to be lopped and scattered.
3. Area south of trail to be burned as soon after the cutting as it dries enough to burn. A repeat burn may be necessary to get the area in a plantable condition and to induce natural seeding in the area near pine seed sources.
4. Direct seeding of red pine on a selected portion of the area. Spring 1971 or 1972.
5. Planting of red pine and white spruce. Hand planting will be done at the rate of about 600 trees per acre. Spring 1971 or 1972.

Treatment Area 1B - Lake Alice Trail

A. Treatment objectives

Similar to those tested under area 1A except that logging and burning will be excluded from the methods tested. A special objective in this area is the release of scattered existing white pine regeneration from the suppression effects of the heavy brush canopy.

B. Proposed treatment schedule

1. Spray shrubs along Lake Alice Trail as described in area 1A.
2. Repeat spraying as needed.

Treatment Area 1C - North side of Lake Alice Trail

A. Treatment objectives

1. Release of red pine and white spruce seedlings planted in 1957 following an experimental cutting of aspen. Aspen suckers coming in after the 1956 cut are seriously suppressing the remaining seedlings and have caused considerable mortality.

B. Proposed Treatment Schedule

1. To be sprayed by helicopter in August, 1969, using a 2,4-D and 2,4,5-T mixture.

Treatment Area #2 - North of Squaw Lake Road

A. Treatment objectives

Conversion of the present aspen-birch-oak stand to a pine-spruce-aspen-birch-oak stand. This area has a larger component of birch and oak in the present stand than do areas 1A and 1B. These tend to occur in clumps and carefully applied treatment can leave existing birch and oak & reduce the aspen component while reintroducing red pine and white spruce.

B. Proposed treatment schedule

1. Logging the aspen. Lop and scatter slash.
2. Spray the brush and aspen sprouting following logging.
3. Planting red pine and white spruce.

Treatment Area #3 - West of Park Drive

A. Treatment Objectives

Conversion of the present pure aspen stand to a mixed red pine-white spruce=aspen mixture. This stand is between 50-60 years old and typical of much of the upland forest west of the main park drive and which was the last major area to be added to the park in the 1920's. Almost no pine is present in this portion of the park.

B. Proposed treatment schedule

Similar to that in area #2.

Figure 1. Treatment Area 1A - Lake Alice Trail
Location: T143N, R36W, Sec. 1, SE¼
Size: 50 acres
Cover: Aspen, with scattered old growth white and red pine, paper birch, and oak.

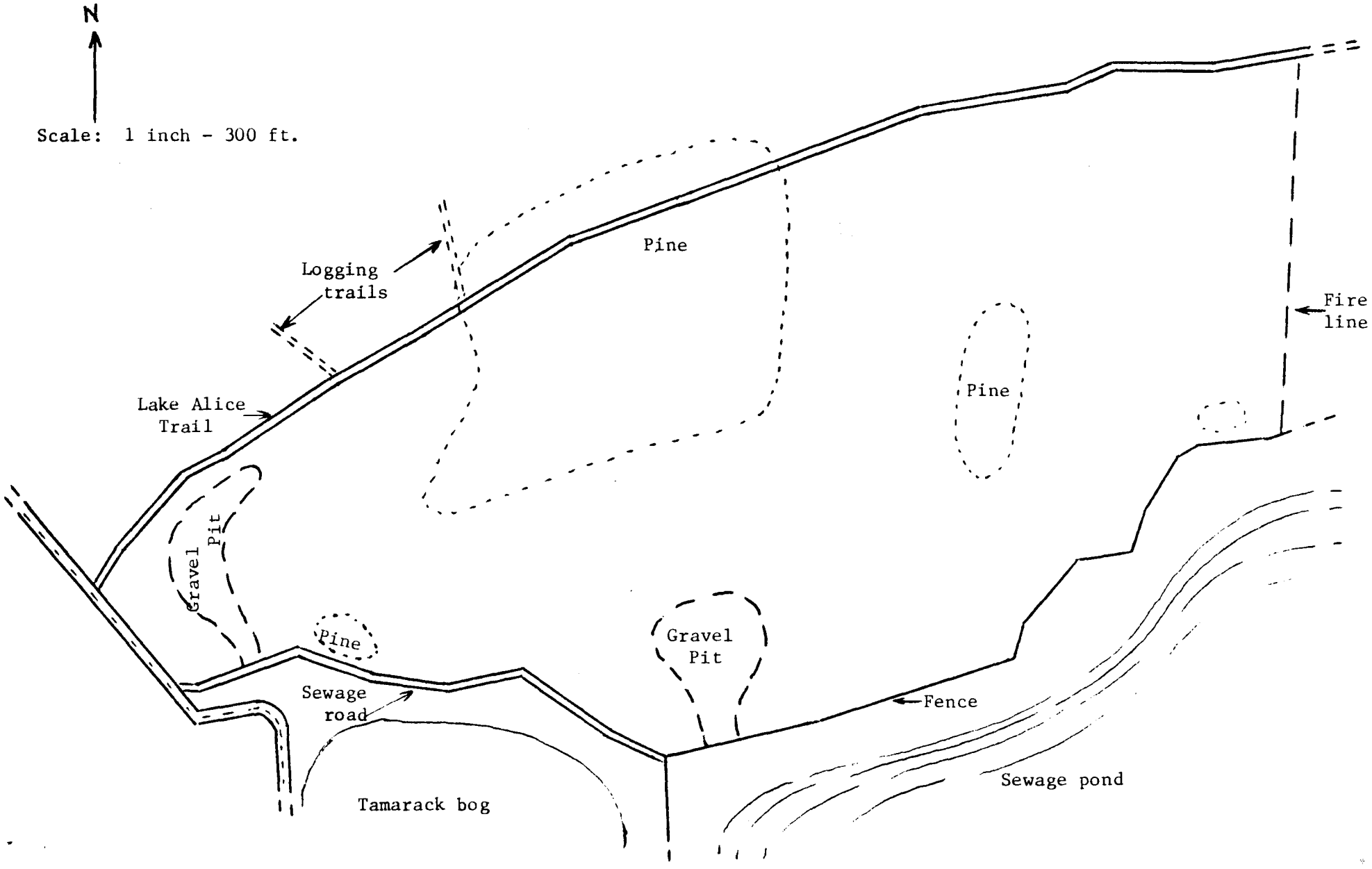

Figure 2. Treatment Areas 1B and 1C - Lake Alice Trail
Location: T143N, R35W, Sec. 6, SW¼
Size: 7 acres in area 1B, 3 acres in 1A
Cover: old growth white, red, and jack pines

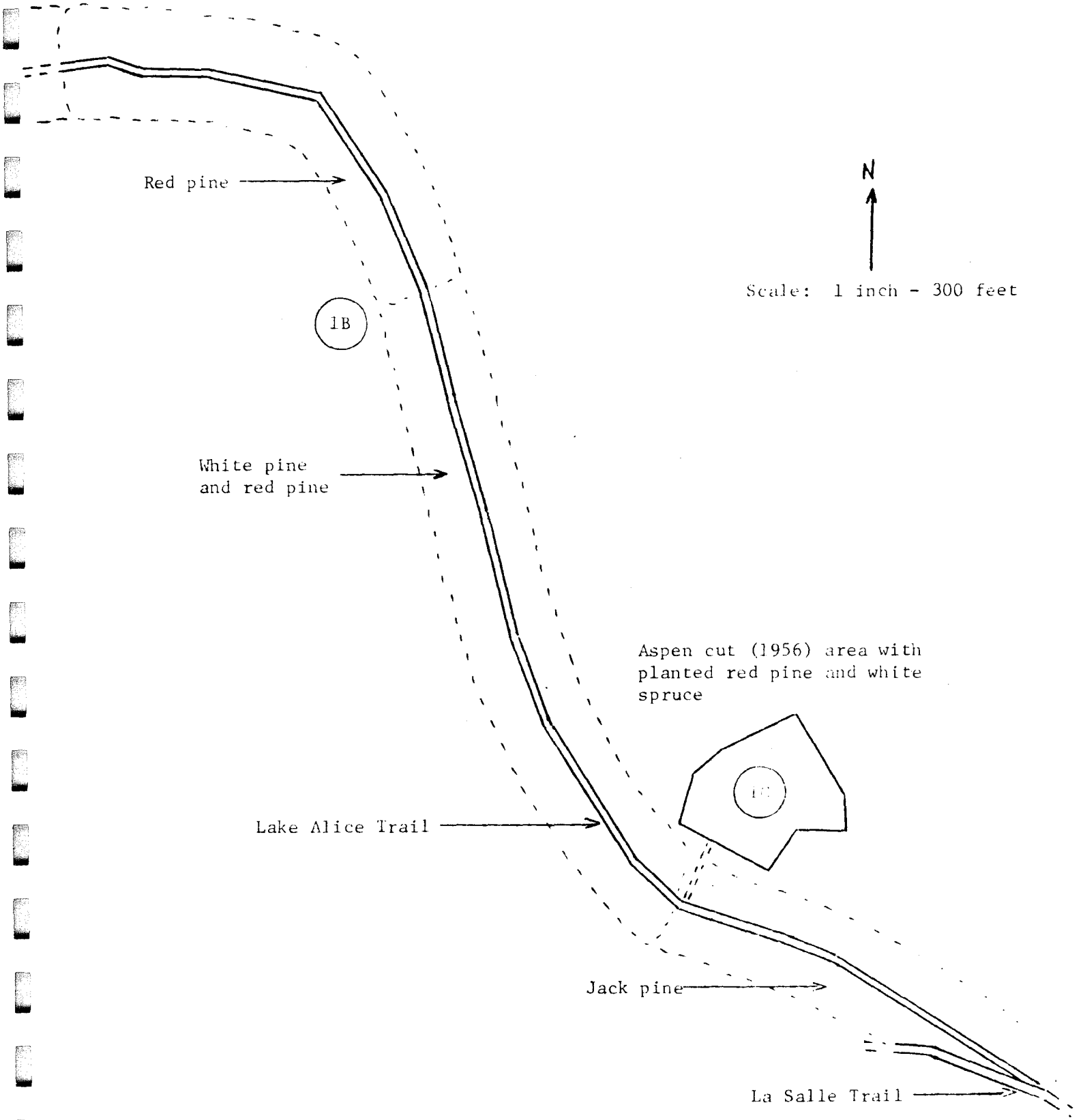

Figure 3. Treatment Area #2 - Squaw Lake
Location: T143N, R36W, Sec. 5, E½
Size: 40 acres
Cover: Aspen, plus birch and oak

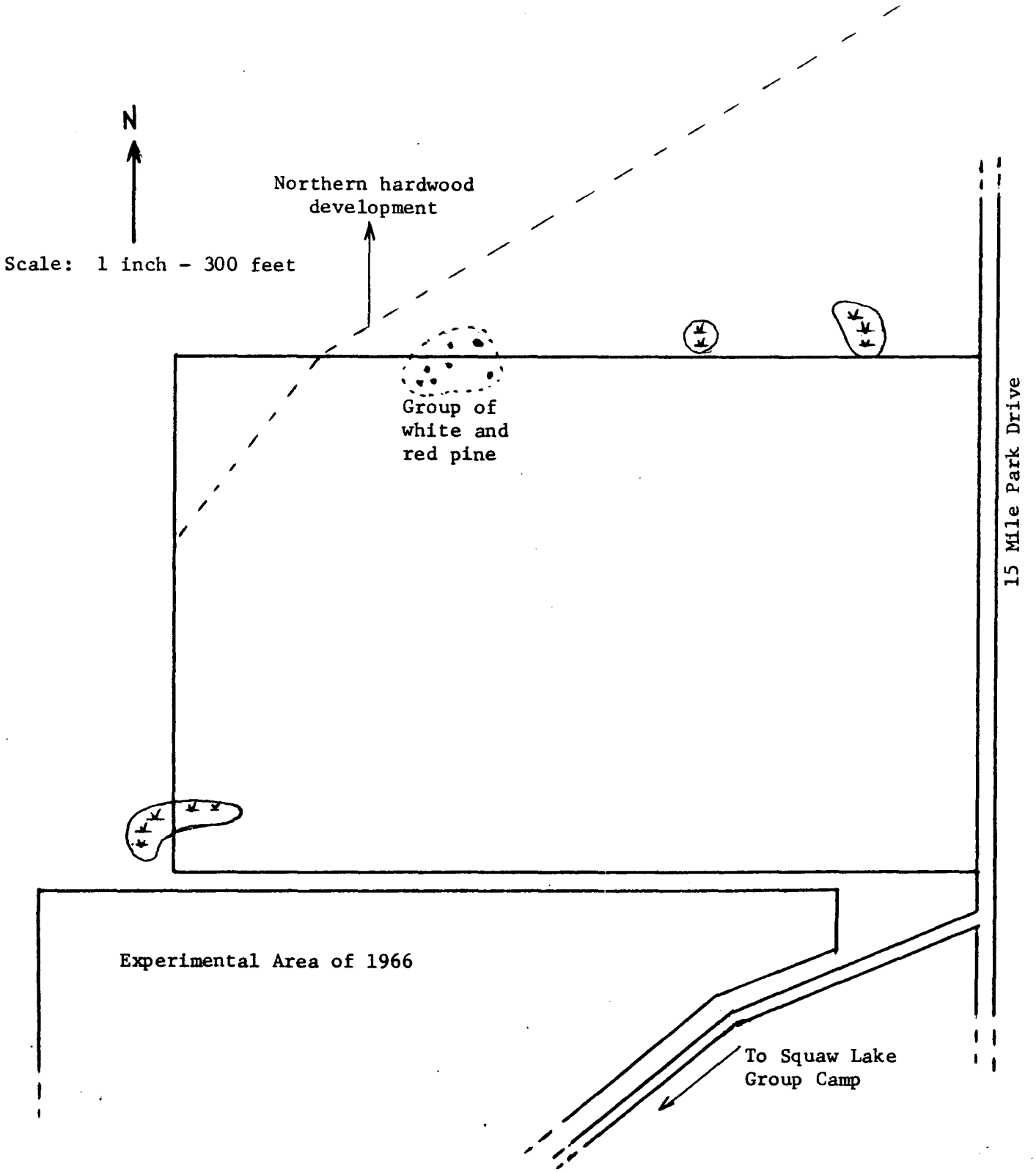

Figure 4. Treatment Area #3 - West Park Drive
Location: T143N, R36W, Sec. 8, NE¼
Size: 18 acres
Cover: Aspen